

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

SUMMARY OF DATA  
OBTAINED IN BASE-LINE STUDY ON LINERBOARD  
DURING AUGUST AND SEPTEMBER, 1965

Project 1108-13

Report

to

TECHNICAL DIVISION  
FOURDRINIER KRAFT BOARD INSTITUTE, INC.

November 30, 1965

# THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

## SUMMARY OF DATA OBTAINED IN BASE-LINE STUDY ON LINERBOARD DURING AUGUST AND SEPTEMBER, 1965

### PART I. GENERAL

	Current Report	Previous Report
Period	August-September, 1965	June-July, 1965
No. of mills	19	18
No. of samples	121	125
Nonparticipants:	<ol style="list-style-type: none"> <li>1. Olin Mathieson</li> <li>2. St. Regis (Pensacola)</li> <li>3. Western Kraft</li> </ol>	<ol style="list-style-type: none"> <li>1. International (Panama City)</li> <li>2. Olin Mathieson</li> <li>3. St. Regis (Pensacola)</li> <li>4. Western Kraft</li> </ol>

### PART II. QUALITY DATA

A. Summary of Data	Report	Current Mill Data			12-Month Cum. FKI Av.
		Max.	Min.	Av.	
Basis Weight, lb./1000 sq.ft.	Cur.	43.5	41.6	42.4	42.5
	Prev.	42.9	41.7	42.4	42.6
Caliper, pt.	Cur.	13.7	12.1	12.7	12.6
	Prev.	13.4	11.8	12.7	12.6
Bursting Strength, p.s.i.g.	Cur.	120	105	111	111
	Prev.	118	103	112	111
M.D. Elmendorf Tear, g./sheet	Cur.	387	266	333	333
	Prev.	382	265	331	334
C.D. Elmendorf Tear, g./sheet	Cur.	411	331	378	379
	Prev.	413	320	375	380

#### B. Trends in Quality Data in Current Report (Reference being data from previous report)

Basis Weight:	No change
Caliper:	No change
Bursting Strength:	Decreased from 112 to 111
M.D. Elmendorf Tear:	Increased from 331 to 333
C.D. Elmendorf Tear:	Increased from 375 to 378

PART III. CALIBRATION DATA

A. Summary of Data

Range, %	<u>Current Report</u>		<u>Previous Report</u>		6-Month Average, %
	No. of Mills	%	No. of Mills	%	

Basis Weight

+ 0.5	10	52.6	8	44.4	59.0
+ 1	17	89.5	15	83.3	91.0
+ 2	18	94.7	18	100.0	100.0
+ 3	19	100.0			

Caliper

+ 0.5	4	21.1	2	11.1	8.8
+ 1	4	21.1	5	27.8	38.1
+ 2	15	78.9	13	72.2	77.1
+ 3	15	78.9	16	88.9	86.0
+ 4	17	89.5	18	100.0	98.2
+ 5	18	94.7			100.0
+ 7.5	19	100.0			

Bursting Strength

+ 0.5	2	10.5	3	16.7	22.8
+ 1	4	21.1	6	33.3	42.0
+ 2	10	52.6	10	55.6	64.8
+ 3	16	84.2	11	61.1	80.4
+ 4	18	94.7	15	83.3	91.1
+ 5	19	100.0	15	83.3	91.1
+ 7.5			18	100.0	100.0

M.D. Elmendorf Tear

+ 0.5	1	5.9	0	0.0	0.0
+ 1	1	5.9	1	6.2	5.8
+ 2	4	23.5	4	25.0	21.6
+ 3	6	35.3	4	25.0	29.1
+ 4	9	52.9	7	43.8	43.0
+ 5	10	58.8	8	50.0	47.0
+ 7.5	12	70.6	10	62.5	62.8
+ 10	15	88.2	14	87.5	84.4
+ 11	17	100.0	16	100.0	
+ 16					100.0

C.D. Elmendorf Tear

+ 0.5	1	5.9	4	25.0	12.2
+ 1	3	17.6	5	31.2	19.9
+ 2	9	52.9	7	43.8	33.5

B. Trends in Calibration Data

For each test, current agreement between mill and Institute data is good and compares favorably with the data for previous reports as indicated by notations below:

Note agreement  
 at range of  $\pm 1\%$

Note agreement  
 at range of  $\pm 2\%$

Note agreement  
 at range of  $\pm 3\%$

Note agreement  
 at range of  $\pm 5$  and  $\pm 7.5\%$

PART III. CALIBRATION DATA (Continued)

A. Summary of Data

B. Trends in Calibration Data

Range,	<u>Current Report</u>		<u>Previous Report</u>		6-Month Average,
	No.	%	No.	%	
	of Mills		of Mills		%

C.D. Elmendorf Tear (Cont'd)

<u>+ 3</u>	9	52.9	9	56.2	49.2
<u>+ 4</u>	10	58.8	11	68.8	64.9
<u>+ 5</u>	11	64.7	12	75.0	68.8
<u>+ 7.5</u>	14	82.4	12	75.0	78.4
<u>+ 10</u>	15	88.2	14	87.5	92.1
<u>+ 17</u>	16	94.1	16	100.0	100.0
<u>+ 22</u>	17	100.0			

Note agreement  
 at ranges of  $\pm 5$  and  $\pm 7.5\%$